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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,243

10/01/2003

Joseph C.H. Yeo

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EXAMINER

NEUDER, WILLIAM P

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/676,243	Applicant(s) YEO ET AL.	
	Examiner William P. Neuder	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/10/03, 3/4/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by
Lewis et al

The applied reference has a common inventor with the instant application.
Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 7-12 and 14-18,20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Giroux et al.

Looking mainly at figure 8, Giroux et al discloses a valve system for use in cementing operations. Functional preamble limitations such as "for cleaning excess cement" are given little patentable weight. Figure 8 shows part of the completion assembly that includes a flowbore 124. Cement or hydrocarbon fluids flow within bore

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124. A valve assembly, 122, 110, 500, 120 is incorporated into the completion assembly for providing selective fluid communication between bore 124 and unnumbered annulus outside of the assembly. Cement plugs selectively close a lower end of bore 124 (see par. 64). As to claims 8 and 9, par. 64 teaches that common cement plugs are used in the cementing operation. Darts having wiper discs and a nosepiece for landing in a seat provided in the flowbore is common cementing plug variations. As to claims 10 and 11, the ports 122 are open at a first fluid pressure and closed at a second fluid pressure. As to claim 12, a shifting tool is used to move sleeve 500 to close the ports in case of failure of sleeve 110 moving to close the ports. As to claim 14, the valve assembly includes an inner mandrel 106 containing a lateral opening and a sleeve 110 moveable with respect to the mandrel to close the ports. As to claim 15, the sleeve 110 is moved in response to fluid applied to the sleeve. As to claim 16, a second sleeve 500 can be used to close the ports. As to claim 17, the second sleeve is manually shifted. As to claim 18, the method of operating the valve includes applying a first pressure to open or maintain open the valve. Circulating working fluid through the valve to the annulus. Applying a second higher pressure to close the ports 122. As to claim 20, sleeve 110 is moved by the second higher pressure to close the valve. As to claim 21, sleeve 500 is used to manually close the port upon failure of sleeve 110 to close the port.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giroux et al (applied above).

Giroux is considered to disclose all of the claimed features except for a rupture disc in flow passages 122. Giroux does teach the use of rupture disc 120 in a port to provide a burst pressure at which that port will be open to close the ports 122. It would have been considered obvious to provide a burst disc in the flow passages 122 as well

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as the closure passage since use of the rupture discs prevents fluid flow until a desired pressure is reached.

Claims 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giroux et al (see above) in view of Ringgenberg et al 6,230,811.

Giroux is considered to disclose all of the claimed features except for a rupture disc in flow passages 122. Ringgenberg teaches providing a rupture disc 143 in a flow passage to prevent fluid flow until a predetermined pressure has been reached. It would have been considered obvious to provide a rupture disc in passages 122 as taught by Ringgenberg so that fluid flow is only allowed once a predetermined pressure arises.

Claims 1,3,5,6 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over French 6,286,594.

French discloses a valve assembly 34,36,38 for incorporation in a completion assembly (figure 2). The valve selectively provides fluid communication between the inner flow passage and the annulus surrounding the tool. An inner mandrel 30 has first and second ends and defines the flowpath. Fluid flow ports 34 are disposed on the inner mandrel. Outer sleeve 36 radially surrounds the inner mandrel. The outer sleeve being moveable with respect to the inner mandrel. The sleeve is moveable between positions blocking and not blocking the flow ports. French does not disclose a rupture disc in passages 34. However, French does teach the use of a rupture disc 54 in a flow passage to prevent passage of fluid until a predetermined pressure ruptures the disc. It would have been considered obvious to provide a rupture disc in passages 122 as well

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as the rupture disc 53 to further prevent fluid flow through ports 34 until a predetermined pressure is reached as a safety measure. As to claim 3, the outer sleeve has a pressure receiving area 56 that moves the sleeve from the open to the closed position. As to claim 5, pressure receiving area acts upon a pressure higher than the pressure requires to rupture disc 53. As to claim 6, shear pins 52 are provided. As to claim 18, a first pressure is applied to open the valve. Working fluid is circulated through the open valve and a second lower pressure closes the valve. As to claim 20, outer sleeve 36 is moved to close the fluid port.

Claims 1,3,5,6 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over French (applied above) in view of Ringgenberg (described above).

French is considered to disclose all of the claimed features except for the use of a rupture disc in passages 34. Ringgenberg teaches providing a rupture disc 143 in a flow passage to prevent fluid flow until a predetermined pressure has been reached. It would have been considered obvious to provide a rupture disc in passages 34 of French as taught by Ringgenberg so that fluid flow is only allowed once a predetermined pressure arises.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William P Neuder
Primary Examiner
Art Unit 3672

W.P.N.